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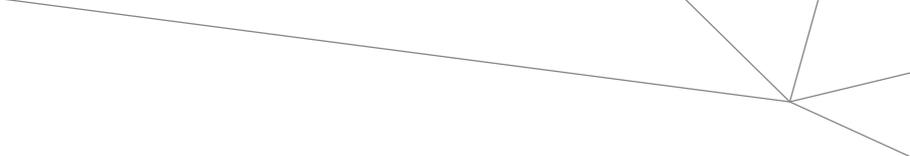
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CHIEF MINISTER'S MESSAGE

Canberra is a unique city, with a high quality of life that most cities aspire to.

It's a great place to raise children. To start a business. To take advantage of world class cultural institutions and enjoy the great outdoors. As we enter a new decade it's time to look at new and innovative ways to make a great place even better.

The ACT Government wants to support a more connected Canberra, taking advantage of advances in technology and data to make life better for Canberrans and the businesses that employ them.



The ACT Digital Strategy is not just about the technology. It doesn't dictate the bits and the bytes. It's about how we use technology to further improve the quality of life for all Canberrans. It sets out a plan of action and makes a range of commitments to the ACT community based on the following timeless principles:

- People in our community are at the centre of everything we do, from policy making to city planning and service delivery
- The data we collect and protect is used and shared transparently, to make better decisions and enhance the wellbeing of people
- Design and co-design is how we manage change and ensure results are achieved
- Strategic, open relationships with a wide range of industry groups creates greater value for the community

The ACT Government is positioning technology at the heart of our decision making and using it to drive better outcomes for our community. Good design and implementation can achieve better service delivery for people, use information more effectively and free up our staff to focus on identifying and servicing those in our community most in need.

Andrew Barr MLA
ACT Chief Minister
March 2020

INTRODUCTION

This Strategy supports the Chief Minister's vision to make Canberra one of the world's most liveable cities; Inclusive, Progressive and Connected; open to all.

The first ACT Government Digital Strategy was published in 2016. Things that were once thought futuristic are now commonplace. Technology is a part of our everyday lives, whether we use it for social, professional or recreational purposes. Government responses and approaches to fulfilling community needs and expectations will be greatly influenced by new ways in which we, as a community, experience and leverage technology advancements in our private lives.

Canberra is well placed for technology revolution. With a population projected to reach 500,000 by 2029¹ the shape of our community, and our city, will need to change. We will age, we will look for different places, and ways, to live. We will seek out new employment opportunities and new ways to travel between our homes, schools, places of work and places of recreation.

In this Strategy we have described a number of current and possible future initiatives to demonstrate how its implementation will further enhance liveability and wellbeing in our community. The progression of any possible future initiatives would be subject to the usual budget processes of government.

We consider this a living Strategy, which will be refreshed on an 18 month to two-year cycle, along with progress reports on our initiatives. We believe the community outcomes described here will stand the test of time, even though the technology, methods and approaches to achieve them will change rapidly. This is one of many strategies and policies that, together, help create a vibrant and welcoming city. Further information on the ACT Government and its other strategies and policies can be found on the ACT Government website www.act.gov.au

We'd like to thank the members of the community and our internal staff who provided feedback throughout the development of this Strategy. You can find out more about our community engagement through the YourSay website: www.yoursay.act.gov.au/your-digital-territory

¹ <https://apps.treasury.act.gov.au/snapshot/demography/act>

WHAT IS OUR FRAME OF REFERENCE?

Our community is at the **centre**

Improving the life of our people is the **reason**

Co-design is the **approach**

Whole of system thinking is the **context**

Data is the **fuel**

People, Process and Technology are the **enablers**

COMMUNITY-CENTRED SERVICES

The ACT Government is ambitious in what it wants to achieve for you and the ACT community by optimising digital and smart technologies. Our vision is that access to ACT Government services is so easy it just happens, often without you needing to do anything to initiate the interaction. We will do this in a similar way that good commercial services are provided. This can happen because we know you, through the services you have used before and by providing you the ability to keep information about you and your circumstances up to date. We will provide digital services that are centred on your needs and that are truly digital in that they deliver real value and convenience, well beyond forms online.

Although the ACT continues to score at the top of the Australian Digital Inclusion Index ², we recognise that not all people in our community get equal benefit from advances in digital technology. By changing the way we think about designing and delivering services with the community in mind, we can work towards making Canberra a much more digitally inclusive city.

What we will do

Bringing the perspective of the community to the centre of our thinking means that we:

- will deliver services that save people, and businesses, time.
- will co-design and test the services we create and change, with you as our community, and with experts in the relevant field.
- will continue to ensure that the most vulnerable members of the community, particularly those who experience discrimination based on age, disability, race, sex, intersex status, gender identity or sexual orientation, are provided every opportunity to access digital services and information.
- want to see the community readily adopt our digital channel because it's easy to find and get what they need.
- will continue to reduce regulatory red tape while improving the integrity of our regulatory functions. We want to make it easy for you while at the same time increasing confidence that we have the right checks and balances in place.
- will support students with equitable access to technology so that they can learn to be confident, competent and safe digital citizens.
- understand that not all government services can or should be provided in a digital way and will continue to provide customer service through our Access Canberra Service Centres and Contact Centre, continuing to provide Canberrans options to speak to us in person if they choose.
- will work together with our community sector organisations to identify and deliver services that meet the needs of all Canberrans.

² <https://digitalinclusionindex.org.au/>

Current initiatives

These are some initiatives that we are working on that illustrates how we are implementing community-centred services. More projects and greater details can be found in the Initiatives attachment.

Moving delivery of more community services online (ACT Digital)

This program is based on the principle that you should only have to prove who you are to government once and be able to access all services relevant to you. Four pilot services have been delivered so far including:

- **Rental Bond Help** that offers eligible people interest-free financial assistance to enter the private rental market.
- **Transfer My Infringement**, for people to transfer their infringement notice to the driver of the vehicle at the time of the offence.
- **ACT Diversity Register** that supports diverse representation on government boards and committees by promoting membership, training and networking opportunities.
- **My Family Service**, a central place for people to tell their story once, update it and share it with services they access.

In 2020 the new National Disability Insurance Scheme Worker Screening system will be integrated with the Working With Vulnerable People registration process. People will be able to renew their Working With Vulnerable People registration, and provide consent for a criminal history check faster through the convenience of their mobile device. Face to face and phone services will still be available and should also provide faster results.

A Digital Health Record for the ACT

The Digital Health Record program will integrate health information from across the ACT public health system so healthcare professionals can access richer information about the patient and improve patient care. It will assist high-quality clinical decisions and motivate patients to participate in their healthcare.

Choice-based letting for public housing

Choice-based letting in public housing will provide options for people to select properties more suitable for their accommodation needs as their circumstances change. Similar to services available in the private rental market, people will be able to browse properties and find available housing. The ACT will be the first jurisdiction in Australia to implement a choice-based letting model in public housing and we expect to start the service in June 2020.

Digital Education

The ACT Government has made a significant investment in ensuring students have the opportunity to learn about technology and develop behaviours that assist them in becoming effective digital citizens now and in the future. Devices are made available to all ACT students, with ACT public secondary school students being provided with their own device. This equity measure ensures that every student in an ACT public school has the same

opportunity for access to a device to enhance their digital learning, regardless of their circumstances. Technology is transforming the way learning occurs in all our classrooms, through enhanced teaching methods that integrate technology and focus on assisting students to be confident and capable learners for life.

There is an emphasis on digital citizenship in ACT schools, particularly eSafety, that assists students with understanding their rights and obligations when engaging with the digital world. Information, awareness and training is provided to students, teachers, and the broader community in order to promote responsible and knowledgeable use of the Internet and other digital and ICT tools.

Looking ahead – possible future initiatives

Birth of a Child

The ACT Government, with QLD and NSW governments, Services Australia, and the Digital Transformation Agency have begun collaborating with a view to remove the burden of form filling by re-using information that governments already hold and establish an identity for a newborn child that all governments can rely on.

Currently, when a baby is born new parents need to register the birth with Births, Deaths and Marriages and obtain a birth certificate, enrol in Medicare and other relevant social services. This can require parents to provide the same information to multiple agencies at both state and federal government levels.

This initiative aims to collect information from parents once and automate the registration and enrolment processes as much as possible, creating simplified processes and better experience for people at a big moment in their lives.

Birth of a Child is now an initiative of the Australian Data and Digital Council.

Moving delivery of more community services online (ACT Digital)

In future years the ACT Digital program could deliver improvements such as the ability to:

- prove eligibility for concessions once - such as pensioner, veterans, seniors' card, student - and have concessions applied automatically for all connected services.
- advise of changes to circumstances once - such as change of address, sale of a car, registration of a dog -- and have this update all systems that rely on currency of this information.
- purchase and use the new integrated light rail and bus tickets from your ACT Digital Account, receiving automatic concession pricing, SMS-style messages or notifications if the rail or bus is running late, or if you need to top up payments.
- receive your rates and land tax notifications, with concessions automatically applied, and choose to pay, set for payment or make payment arrangements

through your ACT Digital Account. This would also reduce the need to send out paper notifications and reminders through the post.

- have a digital Working With Vulnerable People (WWVP) registration, available to present to any employer or official via your mobile device. WWVP/ National Disability Insurance Scheme would be one of many registrations, licences and permits that will move to digital formats, as we co-design with community and industry groups on how we transition to digital drivers' licences.
- have a single place to manage vehicles, with automatic notifications, concessions automatically applied, and choose to pay, set for payment or make payment arrangements through your ACT Digital Account. This would also reduce the need to send out paper notifications and reminders. This would be easier as payments would be a one touch experience.

VALUE THE DATA WE COLLECT AND USE ON BEHALF OF OUR COMMUNITY

People create data touch points every day. We search the internet, catch up with friends on social media, shop online, catch public transport and, increasingly, undertake more complex and personal interactions with the health sector and social services.

Up to a century ago mining and resource companies dominated as the world's most valuable brands. In 2019 the four largest companies by market value were technology companies – Apple, Microsoft, Amazon and Alphabet (owns Google), and they trade in data. The ability to store and analyse vast quantities of data leads to our increasing ability to produce new insights and business opportunities.

Better use of data can enable government to perform its functions more efficiently and effectively - to differentiate needs, to understand the impact of its interventions, to prioritise where it spends resources and to build feedback loops to enable continuous adaptation.

ACT Government seeks to improve the wellbeing of our people so we can all reach our full potential. Public services such as schools, hospitals, transport, child protection and policing have the ability to further improve outcomes for our community and transform lives. This is particularly important for people with diverse and complex needs, and for those suffering any form of disadvantage. To do this, government services are dependent on having all the relevant information to support better planning, strong decision making and effective service provision.

ACT Government is committed to improving information and data sharing within government and with our strategic partners. Central to this is continuing to safeguard the security and privacy of the personal information we collect. As we move forward discovering new uses for our data, we need to decide how to strike the best balance between the opportunities that present themselves, and the risks.

What we will do

Our vision is that the wellbeing of Canberrans is improved through planning, policy and research that delivers better services for all. This means that we will:

- consider privacy, security, transparency and ethics in conducting data and digital activities, underpinned by strong governance arrangements.
- make it clear how the information we collect is protected and used, particularly for all new services and every service we make changes to, leading to increased trust in the ACT Government's use of your information.
- provide easier ways to manage your information and give or remove permissions. We will do this using the ACT Digital Account. As services become connected to your Digital Account, you can make choices.

- ask your permission to reuse or share your information to deliver better services to you, for example, if you move, you can tell us your new address once and ask that we update this in all places we store that information. We will do this in a way that's easy to understand and helps you make an informed choice.
- provide alternative options for people who choose not to have their personal information reused.
- use data to identify people with diverse and complex needs to ensure they receive timely and seamless services.
- be open and transparent about data we use for research, policy and analytics purposes and how that data is protected and secured, particularly for new data analytics projects.
- embed a consistent 'privacy and security by design' approach to the development of new and changing services and ensure ongoing monitoring and detection is built into ongoing operations of these services.
- collaborate with people in the community to understand and keep in touch with the range and strength of attitudes to privacy and data sharing, to help make the best-balanced choices around how your data is used.
- publish more open data of higher quality and in formats that can also be read by machines. This could empower our community and industry partners to add value to the data in ways that are of benefit to the community. We will also provide the community with easier ways to access and interpret the data.

Current initiatives

These are some initiatives that we are working on that illustrate how we are valuing and protecting the data we collect. More projects and greater details can be found in the Initiatives attachment.

Wellbeing framework

The ACT Government is developing a wellbeing framework to monitor progress across a broad range of areas that reflect the values of Canberrans and influence our quality of life. The Framework aims to draw on data and other information sources available, from national data sets through to administrative data held by ACT directorates relating to programs they administer.

Specialist Intelligence Gathering (SIG) helicopter

The SIG helicopter operates every day (weather permitting), throughout the ACT and NSW monitoring active bush fires and detecting possible bushfire ignition points. Real time video and still footage transmitted from the helicopter back to command centres in the ACT (ESAHQ) and NSW Rural Service centres is used to inform operational intelligence planning and resource deployment.

To date, the SIG has captured an enormous amount of video footage and fire related data. This initiative will seek to enhance the data analysis to better inform the ESA and other stakeholders of future threats and how best to respond. The linkage to other data sets like weather will support modelling and threat prediction.

Family safety

Our family safety initiatives aim to improve how families with lived experiences of domestic and family violence are supported using better data collection and automation of reporting. By automating currently manual reporting processes, there is opportunity to free up staff to focus on supporting victims of family violence. Richer data on domestic violence can be used to provide insights into the characteristics and trends of domestic violence in the ACT; supporting improvements in the policy and service responses.

Proactive waterways management

This initiative seeks to improve the health of ACT waterways by integrating data from multiple sources and sensors including rainfall, stream flow and water quality. It enables analysis and reporting on the state of ACT waterways in near real time and development of dynamic models of the ACT waterways. This can support a wide range of strategic and operational needs including land development, climate change, water-sensitive urban design and statutory reporting obligations. Future benefits include predictive modelling of outbreaks of viral gastroenteritis and algae blooms and enable early treatment to prevent public health risks.

Looking ahead – possible future initiatives

Understanding what has happened in the past can help prepare us for the future. Data that is captured and interrogated in real-time allows us to model scenarios and implement actions or remedies before they become issues. This can help us provide better and more timely services, such as managing the transportation system and our environment. We recognise and leverage the value of data including by using open data and access to real-time data feeds.

Joined-up services

The services we provide for the most vulnerable people and families in our community will become easier to access. Those who need multiple community services and supports should be able to receive them without having to navigate the structures of government. That is, access to all services regardless of where they first present, for example in healthcare, community services, housing, education or the justice system.

Internet of Things – enabling our city

The city infrastructure we develop will continue to incorporate digital capabilities and be capable of providing information about how it is performing (for example, are streetlights working) or what is happening around it (the temperature, wind speed, noise levels, air quality). This data will feed into other whole-of-city models that allow us to operate and plan

for changes, improving our resilience and sustainability as a city. It could also be used in times of emergency to help determine how best to respond, such as monitoring wind direction through the streetlights, traffic flow from CCTV cameras and pedestrian traffic from Bluetooth detection; all in real-time. Work is currently underway to develop a connected city using initiatives such as the smart streetlight deployment. In the future this could be used to connect new Internet of Things infrastructure to gain greater insights into improving the liveability and resilience of our entire city.

The impact of new technologies on our city

Our future will present us with different opportunities and challenges in how we use technology and data to meet the demands of a changing world. Examples include achieving energy sustainability, the use of electric vehicles, the increase of suburban power generation, drone delivery and driverless cars. We will model the effects of increasing numbers of electric vehicles requiring charging from workplaces and the flow-on impact on the electricity grid. Related to that will be the local generation of power in suburbs creating a virtual power plant that can be managed to provide power distribution where needed, based on real-time data from multiple data sources.

CITY PLANNING - BY DESIGN – AND FOR WELLBEING

Our desire for Canberra is for it to be liveable, sustainable, resilient and open to all. This means that it is easy to get around and easy to access work, education, services, leisure and activities. Canberra is a knowledge city that can attract and retain talent and investment, can develop the education and training jobs of the future, allows business to diversify, grow and partner. Most importantly, it means Canberra supports diversity, equality and accessibility.

The 2018 ACT Planning Strategy sets a vision ‘to be a sustainable, competitive and equitable city that respects Canberra as a city in the landscape and the National Capital, while being responsive to the future and resilient to change’.³

Future cities use data and technology to achieve sustainability, efficiencies, economic growth and enhance wellbeing factors for the people who live, study and work there. These cities are easy to get around in and are places where it’s easy to access work, education, services and leisure. A future city uses seamless technology to enable connection and innovation. To be a future city, is to put the wellbeing of the community as the top priority, it’s digitally connected and inclusive.⁴

Data is core infrastructure that enables everything else. It helps us understand how the city is working today, predict changes that need to be made to address hotspots, cater for emerging needs, provide better services and understand if changes have been effective.

The Canberra of the future will be co-designed. With the community, and teams within and beyond government accessing expertise across the range of amenity, from lived experience, engineering, parks and wildlife, utilities, traffic, water, sustainability, community services and technology. This is needed to ensure we plan and design our major initiatives to achieve all the things we want from a new or renewed development.

What we will do

Building community-centred design and co-design approaches into the way we plan for changes in urban and regional developments, and in service delivery will be how we ensure that the benefits can be achieved.

While we have many of the building blocks to develop a digital approach to whole of city planning and modelling, it will take time for the ACT Government to develop the data and the models, and for industry to provide information in an agreed digital standard and reusable format. We will also need to mature our approach to co-design of projects with the community and experts. This means that we:

³ www.planning.act.gov.au/act-planning-strategy

⁴ <https://publications.csiro.au/rpr/download?pid=csiro:EP184039&dsid=DS1>

- will draw on the data, tools and expertise we already have to start the journey towards a complete digital model of our city's geography, environment, infrastructure and buildings - a digital twin of Canberra.
- will develop the skills and tools to enable us to effectively work with the community and expert advisers to undertake co-design planning of key projects.
- will work on making our geospatial information sharable and standards-based.
- will work with industry and suppliers to provide information and plans in digital formats.
- will publish our place-based information to enable public, academic and industry participation.

Current initiatives

These are some of the initiatives that we are working on that illustrate how we are co-designing and planning for and with the community. More projects and greater details can be found in the Initiatives attachment.

Place Intelligence Dashboard – City Renewal Authority

The Place Intelligence Dashboard is a real-time place analytics and automated reporting platform aligned with 17 place-performance indicators within the City Renewal Precinct of Dickson, Northbourne Avenue, Haig Park, Civic and West Basin. The Place Intelligence Dashboard will provide benefits such as:

- data-based insights to drive urban renewal.
- real-time analytics using the place-performance indicators.
- automated performance reporting.
- tracking changes over time to measure effectiveness.
- precinct-wide and sub-precinct reporting.

The City Renewal Authority is charged with coordinating cohesive urban renewal that is people-focussed, design-led and sustainable. The dashboard will allow the Authority to better understand, from the human perspective, the current status of the city, measure the success of its initiatives, plan for future programs and projects, and to track change over time. It supports urban renewal that best meets the current and future needs of the community.

Unified geospatial ecosystem

ACT Government are building an enterprise-wide geospatial platform providing a single user interface and storage repository for all authoritative ACT Government location information. Housing all geospatial data such as cadastral, asset, infrastructure, environment and transport the platform will support internal spatial data analysis supporting critical decision making. It will also provide a mechanism for spatial data to be shared to open data platforms and directly with Government partners. The system will host ACTmapi and other public

mapping applications to ensure everyone can access government location information efficiently.

The platform will be used to provide up to date mapping and spatial data to industry, academia and the community. It will not only enable better planning and decision making, it will also allow entrepreneurs and business to develop new applications based on authoritative location information.

3D Canberra Planning Tool

Known as 3D Canberra, the digital model allows for 'on-the-fly' 3D testing and visualisation of different planning and development scenarios; for example, how buildings fit into the streetscape, how the shadows change throughout the day, and how proposals integrate into the wider environment.

Looking ahead – possible future initiatives

A digital model of Canberra

In the future we want to bring together the information we have on our city – like land, building plans and materials, environmental flows and traffic - to create a model of Canberra; a 'digital twin' that reflects our city and how it works. Current examples include how parts of the built environment are represented in the 3D Canberra Planning Tool, and location and mapping information in the Geospatial Ecosystem.

As the world becomes increasingly digital, so does infrastructure design, construction and asset management processes. Digital Engineering and Building Information Modelling is transforming the infrastructure sector with innovation and increased efficiency in delivery. The complete model of Canberra includes key design and condition information for physical assets above and below ground as well as legal boundaries to better manage current and future developments.

A digital model of Canberra would be a strategic public asset. We could use it to forecast the impact of a development on the existing built and natural environment, as well as the impacts on aspects such as water usage, power consumption, noise levels and the impact of fire. Having a complete model of Canberra would benefit building developers who could use it to help design and refine their building development applications, armed with greater knowledge about the existing infrastructure. Local communities could see the development virtually in 3D before it is built, enabling real-time feedback to designers who can incorporate enhancements. A complete digital model of Canberra supports city planning by design. We envision our future city:

- is designed with community and industry.
- enables developers and community to see the impact of proposed changes.
- is designed to be inclusive and accessible to all, including those without digital technology.

- uses technology to model changes in the city to enable Canberra to be more liveable, sustainable, resilient and safe.
- uses connected technology that can monitor and report on what is occurring within the city.
- can use data to make services more efficient and make best use of the resources we have.
- continues to test, and trial new and emerging technologies.
- is seen as being a city of choice to support a diversity of new and growing industries.

Community and digital hubs

Public libraries are a great resource for connecting people in communities and providing access to technology. However, their locations may not be convenient for people who live in some parts of Canberra. Looking ahead we will work with community services organisations and libraries on options to expand community hubs to other locations, to improve access to technology and create a better sense of connectedness and belonging.

Finding and booking the use of public places

ACT Government manages the city's public facilities and we want to provide easier ways to book and hire a range of public amenities for your community or other functions. These include parks and barbeque spots, sportsgrounds, community and school halls, campgrounds and cottages.

RELATIONSHIPS WITH INDUSTRY TO CREATE VALUE FOR OUR COMMUNITY

Our vision is of a connected, vibrant, active and prosperous community, supported by an equally vibrant and prosperous business sector. Strong strategic relationships between government and various industry groups, sharing information about emerging demands and government priorities, being open to new ideas and trialling new technology, will help us achieve this vision. ACT Government is prepared to take managed risks to achieve solutions-based innovations that bring value and benefit to the community. We recognise that government is not alone in providing services to the community and that opportunities exist to provide more seamless and efficient services by working together. Boosting engagement is a way to broaden our own perspective, learn different approaches, enable industry and our community to add value, ensure better services through partnering, and optimise outcomes from joined-up approaches.

Canberra has a thriving knowledge economy, a highly educated workforce and ready access to research collaborations. The Canberra information technology sector is made up of over 1,500 businesses⁵ ranging from multinationals down to micro businesses. Private sector employment of information technology professionals in Canberra is more than double the Australia average on a per capita basis. In Canberra you can build a world-class global business, leveraging talent through connected networks, linking into research and higher education and having access to contemporary digital infrastructure.

Rapidly changing technology creates new opportunities, particularly in the knowledge economy. It also creates new challenges. Identifying and sharing knowledge, opportunities and challenges across government and various industry sectors such as education, social services, health, property, finance, environment, science and technology, can allow us to identify and create value for our community potentially greater than the sum of our parts.

What we will do

By pooling our knowledge and experience, we can deepen our collective understanding of the Canberra community, current and emerging needs and demands across a range of specific areas. It can help us identify areas that are potentially over-served, or where the service provided is not quite what is needed. It can help us understand where there may be unintended consequences of policy decisions, that could identify new areas of focus. It can

⁵ Australian Bureau of Statistics 2019, *Counts of Australian Businesses, including Entries and Exits, June 2014 to June 2018*, 'Businesses by Main State by Industry Class by Turnover Size Ranges, June 2017 and June 2018', data cube: Excel spreadsheet, cat. no. 8165.0, viewed 9 January 2020, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8165.0June%202014%20to%20June%202018?OpenDocument>

help us identify challenges for businesses in areas such as workforce or red tape. Working together on solutions can create greater value for the people in our community, as well as for industry groups and government.

This means that we will:

- work with community services organisations to optimise services provided to the people in our community who need them the most. Joined-up community services optimise our resource investments and ensure people don't fall through gaps in service delivery, and we can improve wellbeing, inclusion, connection and amenity.
- co-design future government services with business and industry groups to ensure we reduce regulatory red tape, whilst also improving the integrity of our compliance regimes.
- build on our relationships with the higher education, research and tertiary education sector and ensure that digital knowledge and skills results in capability and capacity in Canberra's workforce.
- work with employers on their current and emerging workforce needs and complete the feedback loop to help the education and training to keep pace.
- consult on the value of an industry forum where established technology and digital companies can come together, learn about ACT Government priorities and provide feedback to improve the way we work together. Examples could be - the extent to which digital skills taught in schools are transferrable to industry placements, or how we reuse the natural systems in industry for future city planning.
- seek to understand and address barriers for Canberra businesses competing for ACT Government tenders.
- continue to promote Canberra as a great place to establish a business, attracting local and international investment.
- continue to foster new ideas and trial new technology in collaboration with industry and the community.
- continue to support our innovation ecosystem, empower entrepreneurs and provide connections, networks and knowledge to help them get a start in a thriving competitive industry.
- show case Canberra's world class digital businesses and continue to support export development and assist them to grow.

Current initiatives

These are some of the initiatives that we are working on that illustrate how we are engaging with industry to benefit the community. More projects and greater details can be found in the Initiatives attachment.

Canberra - a hub for trialling new ideas

Canberra is building a reputation as a place with a highly educated and technology savvy community, a progressive government, and as a good place to trial new technologies. We work with business, citizens and academics to understand the potential of emerging technologies and provide the conditions to safely trial and learn.

The **CANdrive project** was co-designed with the Australian National University and the University of Canberra to test new technology and enable one of Canberra's growing knowledge companies, Seeing Machines, to develop its value proposition in a real-world scenario. This enabled Seeing Machines to strengthen its leadership while helping us understand the emerging technology and how and why regulation may need to change.

The **drone delivery trial by Wing** has been testing drone delivery in Australia since 2014 and has conducted three trials around Canberra. Factors for Canberra's selection included the international reputation of the Canberra-based Civil Aviation Safety Authority as one of the most safety-conscious, innovative aviation regulators in the world. Other considerations included Canberra's per-capita income, its scattered suburbs, digital savviness and talented and experienced unmanned aviation workforce.

Building the workforce of the future

We work with industry and education providers to understand the skills required in the future and establish courses and initiatives that provide industry-ready graduates in Canberra. We know Canberra has enviable liveability and that those who are educated here are likely to stay if the right employment opportunities are here too.

We support Canberra businesses to upskill their staff through programs like the Future Skills for Future Jobs Program⁶. This program identifies the skills of the future, such as digital and cyber skills, and seeks innovative proposals from Canberra businesses to prepare their staff for advanced training.

Priority Investment Program

The Priority Investment Program⁷ was established in 2018-19 and facilitates collaboration between the ACT Government, industry, research and the tertiary sectors to attract investment and grow both established and emerging priority sectors of Canberra's economy.

Four projects across the space, energy, agri-technology and technology sectors have been supported to date:

- In the space sector, a Quantum Optical Ground Station will be established at Mt Stromlo. Skykraft, a spin out company from the University of New South Wales will collaborate with local and international partners to design and manufacture small

⁶ <https://www.skills.act.gov.au/Future%20skills%20for%20Future%20Jobs%20Grants%20Program%20-%20Guidelines>

⁷ <https://www.act.gov.au/pip>

satellite constellations for the delivery of space-based air traffic management services.

- In the energy sector, ITP Renewables Pty Ltd will establish a Distributed Energy Resources Laboratory at the Australian National University (ANU), in collaboration with industry and the tertiary education sector. The laboratory will provide an interface with the energy grid to test devices and gain intelligence about how energy networks function.
- In the Agri-technology sector, the ANU/CSIRO Centre For Entrepreneurial Agri-Technology will build an innovation ecosystem where research and technology is targeted to agricultural challenges independent of traditional discipline boundaries.
- In the technology sector, Austcyber will deliver the Canberra Cyber Security Innovation Node. The Node will grow and create jobs while strengthening Canberra's knowledge economy – particularly around cyber security in the space, defence and education sectors.

Looking ahead – possible future initiatives

Digital data exchange

We will engage with industry and academia to gauge levels of interest and readiness to move to the exchange of 3D digital data for infrastructure, buildings and property envelopes. This will assist in building a comprehensive accurate digital twin that will add value to all.

For example, understanding how a mix-use multistorey complex is structured in 3D will ensure clear relationships between commercial, residential and common areas. As a resident you would also be able to identify where your car park/garage/storage is within the building.

RESHAPING THE GOVERNMENT OF TODAY – BUILDING THE GOVERNMENT OF THE FUTURE

ACT Government is ambitious in the desire to create an inclusive, progressive and connected Canberra, taking advantage of technology and data to achieve measures of wellbeing for the people and measures of prosperity for businesses. Success depends on continuing to evolve the knowledge and skills of the people who work in government, the methods and processes used to deliver needed change and making clever and sustainable choices about technology investments.

Our focus areas

Invest in our people

For government to be community-centred, transparent, data-driven, trusted and innovative, we need to create the conditions for staff to be constantly learning future-ready skills on-the-job. The biggest challenge is finding ways to create the space for our staff to learn new skills and build on these through practice.

The skills are a combination of knowledge-based and other skills and include:

- leadership
- adaptability and openness to learning
- community-centred and customer service orientation
- design-thinking and approaches to managing change
- active listening, communication and story-telling
- understanding the value of data and the ability to analyse and use it
- collaboration and teamwork, within, across and outside of government
- program and project management
- critical thinking and analysis
- procurement and contract management
- privacy and security
- change management

We will invest in our staff to build these capabilities, at all levels. We will do this through a combination of formal training, on-the-job learning, guidance materials and story-telling. For example, the ACT Digital Program is using contemporary design and program management methods using a multi-disciplinary team across government to deliver Working with Vulnerable People reforms. We are working to progressively build a Data Governance and Management Framework to build awareness of the value of data and guide staff as they evolve their data management practices. We are working across jurisdictions to share intelligence and resources on leading digital transformation and building the future workforce.

Design and co-design are the way we manage change

Community-centred design approaches help us deliver change that meets community needs, because you've been involved with government and experts in helping to shape and design the change. Other key features include:

- clarity of outcome - everyone working on change understands the outcome to be achieved and who the beneficiaries are; as each project evolves, we test against the outcome to ensure we're on target.
- holistic design - this considers people, process, place, technology, communications, user experience, data, policy and legislation that contribute to success to build coordinated and integrated policy and service delivery.
- multi-disciplinary teams - offer greater perspectives and expertise to ensure a change meets the outcome, reduces burden in the community, is sustainable for government to administer and doesn't create unintended consequences.
- design governance - supports informed decision-making and provides opportunities for government and senior leaders to understand how a change is planned to be implemented, identify positive and negative effects and allows for adjustment before more expensive build and implementation phases.

Strategic approach to ICT investment

The ACT Government supports the community and everything we do in government is supported by technology. Many of the services we deliver require collaboration across ACT Government agencies and industry groups such as community services organisations. Historically systems have been designed along organisational boundaries.

Our future ICT investment decisions are being informed by government priorities and understanding our existing technology estate, including the challenges of adequately resourcing maintenance and upgrades. Cross-government integration is a key objective and we are creating a whole of government business, information and technology architecture and roadmap to guide our decisions.

Identification of system capabilities and understanding how these support the community and functions of government, will enable us to identify systems that perform similar functions for consolidation over time, and the ones that perform niche functions that need to be preserved or enhanced.

Full-Service ICT

The ACT Government has achieved efficiencies in the delivery of Human Resource, Finance and ICT functions through a Shared Services model. Under this model the government has delivered a common desktop environment, adopted a 'cloud first' strategy, moved a number of business systems into the cloud, and strengthened the maturity of our technology lifecycle management processes.

Our approach has delivered the technology foundations that support a philosophy of 'one ACT Government'. However, the business of government continues to evolve, along with the services we provide to the community, requiring ongoing investment in new technologies.

Like many other governments and large organisations, we are challenged with the pace of technological change and the investment required to maintain, decommission or renew the vast array of applications required to support our front-line services.

The next phase of our technology strategy needs to focus, where it makes sense, on:

- continuing to evolve strategic approaches to ICT investment.
- consolidating common functions onto core platforms and building new solutions from standardised, reusable components.
- centralising, where appropriate, the management and support of applications.

Applications and software services are the technology interface to our community, and our staff. Their databases house the data that's so important to the future of our community, and their business rules and workflows either work together to achieve a good result, or work against useability and productivity. To optimise the use of our resources we will progressively utilise more commodity ICT services to enable our staff to focus on:

- building deeper knowledge of ACT Government business streams
- participating in multi-disciplinary co-design teams
- configuring standardised Software-as-a-Service (SaaS) solutions to support common government processes
- evolving our software solutions to address changing community expectations.

Responsive procurement

The fundamental principles of government procurement are to be transparent, fair and ethical, while delivering value for money to the Territory in the goods and services we purchase. We must ensure that we create and maintain competition for our business.

Our procurement processes in the ACT need to evolve to keep pace with the changing way that goods and services are sourced and provided in an ever-changing digital marketplace. A traditional Request for Tender (RFT) process is time-consuming and costly for government to prepare and for industry to respond to and is not always the best way of achieving the desired procurement outcome. There are other ways that government can ensure probity of process, and structure broad participation in a competitive test of the market without presenting disproportionate hurdles for businesses.

In technology procurements, smaller companies don't always have the resource base to compete with larger companies on tender responses, even though their products or service offerings may be competitive. At the other end of the procurement scale, larger companies may choose not to respond to an RFT if the value of any arrangement is not enough to

warrant the investment of time and resources in developing that response. The challenge in employing the appropriate procurement method, therefore, is one of better matching the outcome being procured to how businesses can best put forward their offering.

The traditional Statement of Requirements, in which we are encouraged to conceive and list everything that we might want in detail, gives way to less prescriptive outcomes-based procurement practices, where we define clearly the outcomes we're seeking to achieve, and any broad parameters within which this must be done such as time, cost or in consultation with various parties. This approach places a stronger emphasis on evaluation of responses against the strategic need of the Territory, encourages innovation and provides a level playing field for businesses of any size or scale to compete.

In technology procurements, the traditional engagement with a software company to design and build a product to a set of specifications, has given way to software as a service. These are either purchased as complete subscription services, or as platforms that can be configured to meet virtually any need.

Privacy and cyber security

The threat of cyber-attack is increasing, and our systems and processes are constantly advancing to maintain protections and lines of defence against these attacks. We take a multi-faceted approach to ensuring the security of our systems, and more importantly, to protect the information they contain. Key strategies include:

- stopping threats from entering, through controls such as firewalls and intrusion detection monitoring.
- controlling who gets access to the network through controls such as strong authentication and on/offboarding processes.
- monitoring, and regular patching of systems.
- protecting users wherever they are – we work in an increasingly mobile world – computing extends beyond the office.
- finding and containing problems fast – includes rapid response and incident management processes.
- educating our users – often data breaches are caused by human error.
- collaborating and information sharing on threats with our government counterparts, increasing resilience – we are stronger together.

Our Cyber Strategy will outline how we will use data to build a safer Canberra, while maintaining and enhancing the privacy principles we are committed to. We will consult with you so that we know your expectations and get the balance right by protecting privacy while making best use of the data collected.

We developed a whole-of-government Strategic Closed Circuit Television (CCTV) Plan 2020-2022⁸ that outlined how we will consolidate and manage CCTV data and use it to safeguard people in the community.

We commit to being transparent about privacy and cyber security breaches if and when they occur.

Current initiatives

Here is one of the initiatives that we are working on that illustrates our commitment to reshaping the government of today. More projects and greater details can be found in the Initiatives attachment.

Human Resource Information Management Solution

We will deliver an ICT solution that optimises payroll service integration with effective people management. This will increase efficiency, improve service delivery and allow us to take a strategic approach to managing our people. The solution will change how we understand our workforce needs, from recruitment to separation. The comprehensive solution integrates payroll and human-capital management, streamlined and harmonised business processes including staff skills and talent planning, recruitment, learning and development, performance management, career planning, compensation and human resources analytics and reporting.

Governance

Our digital governance arrangements include:

Strategic Board

The Head of the ACT Public Service is the chair of the Strategic Board. The Strategic Board is the peak ACT Public Service forum that leads the delivery of cross-directorate and strategic issues. The Strategic Board provides whole-of-government leadership and strategic direction to the ACT Public Service, including leading the digital transition.

This Board comprises all Directors-General and other whole-of-government roles, including the Deputy Director-General, Workforce Capability and Governance; the Deputy Director-General, Policy and Cabinet and the Chief Digital Officer.

Strategic Board meetings are held on a fortnightly basis.

Digital Services Governance Committee

The Chief Digital Officer is the chair of the Digital Services Governance Committee, which is a sub-committee of the Strategic Board. The Committee provides strategic direction, leadership and advice on the development and management of our information and

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http://cdn.justice.act.gov.au/resources/uploads/JACS/PDF/191143_Strategic_Closed_Circuit_Television_Plan_2020-2022.PDF

technology assets. The Digital Services Governance Committee strengthens the whole-of-government ICT portfolio investment management by taking a service-wide, community-centric approach and looking for ways to share information and resources.

The Committee comprises representatives from all directorates and meets monthly.

Data Steering Committee

Currently, the Director-General of the ACT Health Directorate is the chair of the Data Steering Committee, which is a sub-committee of the Strategic Board. It provides strategic direction, leadership and advice on the development and management of our data assets. The Data Steering Committee drives our data management reform agenda, including building data analytics capabilities and implementing whole-of-government data management practices to leverage the value of its data holdings.

The Committee comprises representatives from all directorates and meets every six weeks.



Chief Minister, Treasury and Economic
Development Directorate

March 2020